

“(E) a survey of what additional Federal information and technical assistance the services could utilize; and

“(F) an assessment of how the services could be more effective agents for the transfer of Federal scientific and technical information, including the results and application of Federal and federally funded research.

The Secretary shall submit to the Committee on Science, Space, and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate, at the time of submission of the organization plan for the Institute under section 5112(d)(1) [of Pub. L. 100-418, set out as a note under section 272 of this title], the results of the study and an initial implementation plan for the programs under section 26 of the Act of March 3, 1901 [15 U.S.C. 278l], and under this section [enacting sections 278k to 278m of this title]. The implementation plan shall include methods of providing technical assistance to States and criteria for awarding financial assistance under this section. The Secretary may make use of contractors and experts for any or all of the studies and findings called for in this section.

“(2)(A) The Institute shall enter into cooperative agreements with State technology extension services to—

“(i) demonstrate methods by which the States can, in cooperation with Federal agencies, increase the use of Federal technology by businesses within their States to improve industrial competitiveness; or

“(ii) help businesses in their States take advantage of the services and information offered by the Regional Centers for the Transfer of Manufacturing Technology created under section 25 of the Act of March 3, 1901 [15 U.S.C. 278k].

“(B) Any State, for itself or for a consortium of States, may submit to the Secretary an application for a cooperative agreement under this subsection, in accordance with procedures established by the Secretary. To qualify for a cooperative agreement under this subsection, a State shall provide adequate assurances that it will increase its spending on technology extension services by an amount at least equal to the amount of Federal assistance.

“(C) In evaluating each application, the Secretary shall consider—

“(i) the number and types of additional businesses that will be assisted under the cooperative agreement;

“(ii) the extent to which the State extension service will demonstrate new methods to increase the use of Federal technology;

“(iii) geographic diversity; and

“(iv) the ability of the State to maintain the extension service after the cooperative agreement has expired.

“(D) States which are party to cooperative agreements under this subsection may provide services directly or may arrange for the provision of any or all of such services by institutions of higher education or other non-profit institutions or organizations.

“(3) In carrying out section 26 of the Act of March 3, 1901 [15 U.S.C. 278l], and this subsection, the Secretary shall coordinate the activities with the Federal Laboratory Consortium; the National Technical Information Service; the National Science Foundation; the Office of Productivity, Technology, and Innovation; the Small Business Administration; and other appropriate Federal agencies.

“(4) There are authorized to be appropriated for the purposes of this subsection \$2,000,000 for each of the fiscal years 1989, 1990, and 1991.

“(c) FEDERAL TECHNOLOGY TRANSFER ACT OF 1986.—Nothing in sections [sic] 25 or 26 of the Act of March 3, 1901 [15 U.S.C. 278k, 278l], or in subsection (b) of this section shall be construed as limiting the authorities contained in the Federal Technology Transfer Act of 1986 (Public Law 99-502) [see Short Title of 1986 Amendments note set out under section 3701 of this title].”

§ 278m. Non-energy inventions program

In conjunction with the initial organization of the Institute, the Director shall establish a program for the evaluation of inventions that are not energy-related to complement but not replace the Energy-Related Inventions Program established under section 5913 of title 42. The Director shall submit an initial implementation plan for this program to accompany the organization plan for the Institute. The implementation plan shall include specific cost estimates, implementation schedules, and mechanisms to help finance the development of technologies the program has determined to have potential. In the preparation of the plan, the Director shall consult with appropriate Federal agencies, including the Small Business Administration and the Department of Energy, State and local government organizations, university officials, and private sector organizations in order to obtain advice on how those agencies and organizations might cooperate with the expansion of this program of the Institute.

(Mar. 3, 1901, ch. 872, § 27, as added Pub. L. 100-418, title V, § 5121(d), Aug. 23, 1988, 102 Stat. 1437.)

§ 278n. Advanced Technology Program

(a) Establishment; purpose; focus; guidance

There is established in the Institute an Advanced Technology Program (hereafter in this chapter referred to as the “Program”) for the purpose of assisting United States businesses in creating and applying the generic technology and research results necessary to—

- (1) commercialize significant new scientific discoveries and technologies rapidly; and
- (2) refine manufacturing technologies.

The Secretary, acting through the Director, shall assure that the Program focuses on improving the competitive position of the United States and its businesses, gives preference to discoveries and to technologies that have great economic potential, and avoids providing undue advantage to specific companies. In operating the Program, the Secretary and Director shall, as appropriate, be guided by the findings and recommendations of the Biennial National Critical Technology Reports prepared pursuant to section 6683¹ of title 42.

(b) Authority of Secretary; research and development; contracts and cooperative agreements; Federal laboratories; other activities with joint ventures

Under the Program established in subsection (a) of this section, and consistent with the mission and policies of the Institute, the Secretary, acting through the Director, and subject to subsections (c) and (d) of this section, may—

- (1) aid industry-led United States joint research and development ventures (hereafter in this section referred to as “joint ventures”) (which may also include universities and independent research organizations), including those involving collaborative technology demonstration projects which develop and test prototype equipment and processes, through—

¹ See References in Text note below.

(A) provision of organizational and technical advice; and

(B) participation in such joint ventures by means of grants, cooperative agreements, or contracts, if the Secretary, acting through the Director, determines participation to be appropriate, which may include (i) partial start-up funding, (ii) provision of a minority share of the cost of such joint ventures for up to 5 years, and (iii) making available equipment, facilities, and personnel,

provided that emphasis is placed on areas where the Institute has scientific or technological expertise, on solving generic problems of specific industries, and on making those industries more competitive in world markets;

(2) provide grants to and enter into contracts and cooperative agreements with United States businesses (especially small businesses), provided that emphasis is placed on applying the Institute's research, research techniques, and expertise to those organizations' research programs;

(3) involve the Federal laboratories in the Program, where appropriate, using among other authorities the cooperative research and development agreements provided for under section 3710a of this title; and

(4) carry out, in a manner consistent with the provisions of this section, such other cooperative research activities with joint ventures as may be authorized by law or assigned to the Program by the Secretary.

(c) Authority of Secretary; selection criteria; monitoring use of technologies; overseas transfer; annual report to Congress; financial reporting and auditing; routine consideration of Committee advice; dissemination of research results

The Secretary, acting through the Director, is authorized to take all actions necessary and appropriate to establish and operate the Program, including—

(1) publishing in the Federal Register draft criteria and, no later than six months after August 23, 1988, following a public comment period, final criteria, for the selection of recipients of assistance under subsection (b)(1) and (2) of this section;

(2) monitoring how technologies developed in its research program are used, and reporting annually to the Congress on the extent of any overseas transfer of these technologies;

(3) establishing procedures regarding financial reporting and auditing to ensure that contracts and awards are used for the purposes specified in this section, are in accordance with sound accounting practices, and are not funding existing or planned research programs that would be conducted in the same time period in the absence of financial assistance under the Program;

(4) assuring that the advice of the Committee established under section 278 of this title is considered routinely in carrying out the responsibilities of the Institute; and

(5) providing for appropriate dissemination of Program research results.

(d) Contracts or awards; criteria; restrictions

When entering into contracts or making awards under subsection (b) of this section, the following shall apply:

(1) No contract or award may be made until the research project in question has been subject to a merit review, and has, in the opinion of the reviewers appointed by the Director and the Secretary, acting through the Director, been shown to have scientific and technical merit.

(2) In the case of joint ventures, the Program shall not make an award unless the award will facilitate the formation of a joint venture or the initiation of a new research and development project by an existing joint venture.

(3) No Federal contract or cooperative agreement under subsection (b)(2) of this section shall exceed \$2,000,000 over 3 years, or be for more than 3 years unless a full and complete explanation of such proposed award, including reasons for exceeding these limits, is submitted in writing by the Secretary to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives. The proposed contract or cooperative agreement may be executed only after 30 calendar days on which both Houses of Congress are in session have elapsed since such submission. Federal funds made available under subsection (b)(2) of this section shall be used only for direct costs and not for indirect costs, profits, or management fees of the contractor.

(4) In determining whether to make an award to a particular joint venture, the Program shall consider whether the members of the joint venture have made provisions for the appropriate participation of small United States businesses in such joint venture.

(5) Section 552 of title 5 shall not apply to the following information obtained by the Federal Government on a confidential basis in connection with the activities of any business or any joint venture receiving funding under the Program—

(A) information on the business operation of any member of the business or joint venture; and

(B) trade secrets possessed by any business or any member of the joint venture.

(6) Intellectual property owned and developed by any business or joint venture receiving funding or by any member of such a joint venture may not be disclosed by any officer or employee of the Federal Government except in accordance with a written agreement between the owner or developer and the Program.

(7) If a business or joint venture fails before the completion of the period for which a contract or award has been made, after all allowable costs have been paid and appropriate audits conducted, the unspent balance of the Federal funds shall be returned by the recipient to the Program.

(8) Upon dissolution of any joint venture or at the time otherwise agreed upon, the Federal Government shall be entitled to a share of the residual assets of the joint venture propor-

tional to the Federal share of the costs of the joint venture as determined by independent audit.

(9) A company shall be eligible to receive financial assistance under this section only if—

(A) the Secretary finds that the company's participation in the Program would be in the economic interest of the United States, as evidenced by investments in the United States in research, development, and manufacturing (including, for example, the manufacture of major components or subassemblies in the United States); significant contributions to employment in the United States; and agreement with respect to any technology arising from assistance provided under this section to promote the manufacture within the United States of products resulting from that technology (taking into account the goals of promoting the competitiveness of United States industry), and to procure parts and materials from competitive suppliers; and

(B) either—

(i) the company is a United States-owned company; or

(ii) the Secretary finds that the company is incorporated in the United States and has a parent company which is incorporated in a country which affords to United States-owned companies opportunities, comparable to those afforded to any other company, to participate in any joint venture similar to those authorized under this chapter; affords to United States-owned companies local investment opportunities comparable to those afforded to any other company; and affords adequate and effective protection for the intellectual property rights of United States-owned companies.

(10) Grants, contracts, and cooperative assignments under this section shall be designed to support projects which are high risk and which have the potential for eventual substantial widespread commercial application. In order to receive a grant, contract, or cooperative agreement under this section, a research and development entity shall demonstrate to the Secretary the requisite ability in research and technology development and management in the project area in which the grant, contract, or cooperative agreement is being sought.

(11)(A) Title to any intellectual property arising from assistance provided under this section shall vest in a company or companies incorporated in the United States. The United States may reserve a nonexclusive, non-transferable, irrevocable paid-up license, to have practiced for or on behalf of the United States, in connection with any such intellectual property, but shall not, in the exercise of such license, publicly disclose proprietary information related to the license. Title to any such intellectual property shall not be transferred or passed, except to a company incorporated in the United States, until the expiration of the first patent obtained in connection with such intellectual property.

(B) For purposes of this paragraph, the term "intellectual property" means an invention

patentable under title 35 or any patent on such an invention.

(C) Nothing in this paragraph shall be construed to prohibit the licensing to any company of intellectual property rights arising from assistance provided under this section.

(e) Suspension for failure to satisfy eligibility criteria

The Secretary may, within 30 days after notice to Congress, suspend a company or joint venture from continued assistance under this section if the Secretary determines that the company, the country of incorporation of the company or a parent company, or the joint venture has failed to satisfy any of the criteria set forth in subsection (d)(9) of this section, and that it is in the national interest of the United States to do so.

(f) Coordination with other Federal technology programs

When reviewing private sector requests for awards under the Program, and when monitoring the progress of assisted research projects, the Secretary and the Director shall, as appropriate, coordinate with the Secretary of Defense and other senior Federal officials to ensure cooperation and coordination in Federal technology programs and to avoid unnecessary duplication of effort. The Secretary and the Director are authorized to work with the Director of the Office of Science and Technology Policy, the Secretary of Defense, and other appropriate Federal officials to form interagency working groups or special project offices to coordinate Federal technology activities.

(g) Meetings with industry sources

In order to analyze the need for the value of joint ventures and other research projects in specific technical fields, to evaluate any proposal made by a joint venture or company requesting the Secretary's assistance, or to monitor the progress of any joint venture or any company research project which receives Federal funds under the Program, the Secretary, the Under Secretary of Commerce for Technology, and the Director may, notwithstanding any other provision of law, meet with such industry sources as they consider useful and appropriate.

(h) Standards development

Up to 10 percent of the funds appropriated for carrying out this section may be used for standards development and technical activities by the Institute in support of the purposes of this section.

(i) Acceptance of funds from other Federal departments and agencies

In addition to such sums as may be authorized and appropriated to the Secretary and Director to operate the Program, the Secretary and Director also may accept funds from other Federal departments and agencies for the purpose of providing Federal funds to support awards under the Program. Any Program award which is supported with funds which originally came from other Federal departments and agencies shall be selected and carried out according to the provisions of this section.

(j) Definitions

As used in this section—

(1) the term “joint venture” means any group of activities, including attempting to make, making, or performing a contract, by two or more persons for the purpose of—

(A) theoretical analysis, experimentation, or systematic study of phenomena or observable facts;

(B) the development or testing of basic engineering techniques;

(C) the extension of investigative finding or theory of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, prototypes, equipment, materials, and processes;

(D) the collection, exchange, and analysis of research information;

(E) the production of any product, process, or service; or

(F) any combination of the purposes specified in subparagraphs (A), (B), (C), (D), and (E),

and may include the establishment and operation of facilities for the conducting of research, the conducting of such venture on a protected and proprietary basis, and the prosecuting of applications for patents and the granting of licenses for the results of such venture; and

(2) the term “United States-owned company” means a company that has majority ownership or control by individuals who are citizens of the United States.

(Mar. 3, 1901, ch. 872, §28, as added Pub. L. 100-418, title V, §5131(a), Aug. 23, 1988, 102 Stat. 1439; amended Pub. L. 102-245, title II, §201(c), Feb. 14, 1992, 106 Stat. 16.)

REFERENCES IN TEXT

Section 6683 of title 42, referred to in subsec. (a), was omitted from the Code.

AMENDMENTS

1992—Subsec. (a). Pub. L. 102-245, §201(c)(1), inserted at end “In operating the Program, the Secretary and Director shall, as appropriate, be guided by the findings and recommendations of the Biennial National Critical Technology Reports prepared pursuant to section 6683 of title 42.”

Subsec. (b)(1). Pub. L. 102-245, §201(c)(2), inserted “industry-led” after “aid” in introductory provisions.

Subsec. (b)(1)(B). Pub. L. 102-245, §201(c)(3), inserted “by means of grants, cooperative agreements, or contracts” after “such joint ventures”.

Subsec. (b)(2). Pub. L. 102-245, §201(c)(4), amended par. (2) generally. Prior to amendment, par. (2) read as follows: “enter into contracts and cooperative agreements with United States businesses, especially small businesses, and with independent research organizations, provided that emphasis is placed on applying the Institute’s research, research techniques, and expertise to those organizations’ research programs;”.

Subsec. (d)(2). Pub. L. 102-245, §201(c)(5), amended par. (2) generally. Prior to amendment, par. (2) read as follows: “In the case of joint ventures, the Program shall not make an award unless, in the judgment of the Secretary, acting through the Director, Federal aid is needed if the industry in question is to form a joint venture quickly.”

Subsec. (d)(7) to (11). Pub. L. 102-245, §201(c)(6), redesignated pars. (8) and (9) as (7) and (8), respectively, added pars. (9) to (11), and struck out former par. (7) which read as follows: “The Federal Government shall

be entitled to a share of the licensing fees and royalty payments made to and retained by any business or joint venture to which it contributes under this section in an amount proportional to the Federal share of the costs incurred by the business or joint venture as determined by independent audit.”

Subsec. (e). Pub. L. 102-245, §201(c)(7), amended subsec. (e) generally. Prior to amendment, subsec. (e) read as follows: “As used in this section, the term ‘joint research and development venture’ has the meaning given to such term in section 4301(a)(6) of this title.”

Subsecs. (f) to (j). Pub. L. 102-245, §201(c)(8), added subsecs. (f) to (j).

CHANGE OF NAME

Committee on Science, Space, and Technology of House of Representatives treated as referring to Committee on Science of House of Representatives by section 1(a) of Pub. L. 104-14, set out as a note preceding section 21 of Title 2, The Congress.

EFFECTIVE DATE OF 1992 AMENDMENT

Section 201(d) of Pub. L. 102-245 provided that: “The amendments in subsection (c) [amending this section] shall take effect immediately upon enactment [Feb. 14, 1992]; however, the amendments shall not apply to applications submitted before the date of enactment of this Act.”

CONGRESSIONAL FINDINGS AND PURPOSES FOR ADVANCED TECHNOLOGY PROGRAM AMENDMENTS

Section 201(b) of Pub. L. 102-245 provided that:

“(1) The Congress finds that—

“(A) technological innovation and its profitable inclusion in commercial products are critical components of the ability of the United States to raise the living standards of Americans and to compete in world markets;

“(B) maintaining viable United States-based high technology industries is vital to both the national security and the economic well-being of the United States;

“(C) the Department of Commerce has reported that the United States is losing or losing badly, relative to Japan and Europe, in many important emerging technologies and risks losing much of the \$350,000,000,000 United States market and \$1,000,000,000,000 world market expected to develop by the year 2000 for products based on emerging technologies;

“(D) it is in the national interest for the Federal Government to encourage and, in selected cases, provide limited financial assistance to industry-led private sector efforts to increase research and development in economically critical areas of technology;

“(E) joint ventures are a particularly effective and appropriate way to pool resources to conduct research that no single company is likely to undertake but which will create new generic technologies that will benefit an entire industry and the welfare of the Nation;

“(F) it is vital that industry within the United States attain a leadership role and capability in development, design, and manufacturing in fields such as high-resolution information systems, advanced manufacturing, and advanced materials; and

“(G) the Advanced Technology Program, established under section 28 of the National Institute of Standards and Technology Act (15 U.S.C. 278n), is the appropriate vehicle for the United States Government to provide limited assistance to joint development within the United States of new high technology capabilities in fields such as high-resolution information systems, advanced manufacturing technology, and advanced materials, and can help encourage United States industry to work together on problems of mutual concern.

“(2) The purposes of this section [amending this section and section 272 of this title and enacting provi-

sions set out as notes under this section and section 271 of this title] are—

“(A) to strengthen the Advanced Technology Program created under section 28 of the National Institute of Standards and Technology Act (15 U.S.C. 278n), and to provide improved guidelines for the allocation of Advanced Technology Program funds appropriated under the authorizations contained in section 105 of this Act [amending sections 278k and 4632 of this title and provisions set out as a note under section 278l of this title];

“(B) to promote and assist in the development of advanced technologies and the generic application of such technologies to civilian products, processes, and services;

“(C) to improve the competitive position of United States industry by supporting industry-led research and development projects in areas of emerging technology which have substantial potential to advance the economic well-being and national security of the United States, such as high-resolution information systems, advanced manufacturing technology, and advanced materials; and

“(D) to support projects that range from idea exploration to prototype development and address long-term, high-risk areas of technological research, development, and application that are not otherwise being adequately developed by the private sector, but are likely to yield important benefits to the Nation.”

COMPREHENSIVE REPORT ON ADVANCED TECHNOLOGY PROGRAM

Section 201(f) of Pub. L. 102-245 provided that: “The Secretary shall, not later than 4 years after the date of enactment of this Act [Feb. 14, 1992], submit to each House of the Congress and the President a comprehensive report on the results of the Advanced Technology Program established under section 28 of the National Institute of Standards and Technology Act (15 U.S.C. 278n), including any activities in the areas of high-resolution information systems, advanced manufacturing technology, and advanced materials.”

NATIONAL ACADEMIES OF SCIENCES AND ENGINEERING STUDY OF GOVERNMENT-INDUSTRY COOPERATION IN CIVILIAN TECHNOLOGY

Section 5131(c) of Pub. L. 100-418 provided that:

“(1) Within 90 days after the date of enactment of this Act [Aug. 23, 1988], the Secretary of Commerce shall enter into contracts with the National Academies of Sciences and Engineering for a thorough review of the various types of arrangements under which the private sector in the United States and the Federal Government cooperate in civilian research and technology transfer, including activities to create or apply generic, nonproprietary technologies. The purpose of the review is to provide the Secretary and Congress with objective information regarding the uses, strengths, and limitations of the various types of cooperative technology arrangements that have been used in the United States. The review is to provide both an analysis of the ways in which these arrangements can help improve the technological performance and international competitiveness of United States industry, and also to provide the Academies’ recommendations regarding ways to improve the effectiveness and efficiency of these types of cooperative arrangements. A special emphasis shall be placed on discussions of these subjects among industry leaders, labor leaders, and officials of the executive branch and Congress. The Secretary is authorized to seek and accept funding for this study from both Federal agencies and private industry.

“(2) The members of the review panel shall be drawn from among industry and labor leaders, entrepreneurs, former government officials with great experience in civilian research and technology, and scientific and technical experts, including experts with experience with Federal laboratories.

“(3) The review shall analyze the strengths and weaknesses of different types of Federal-industry coopera-

tive arrangements in civilian technology, including but not limited to—

“(A) Federal programs which provide technical services and information to United States companies;

“(B) cooperation between Federal laboratories and United States companies, including activities under the Technology Share Program created by Executive Order 12591 [15 U.S.C. 3710 note];

“(C) Federal research and technology transfer arrangements with selected business sectors;

“(D) Federal encouragement of, and assistance to, private joint research and development ventures; and

“(E) such other mechanisms of Federal-industry cooperation as may be identified by the Secretary.

“(4) A report based on the findings and recommendations of the review panel shall be submitted to the Secretary, the President, and Congress within 18 months after the Secretary signs the contracts with the National Academies of Sciences and Engineering.”

§ 278o. User fees

The Institute shall not implement a policy of charging fees with respect to the use of Institute research facilities by research associates in the absence of express statutory authority to charge such fees.

(Mar. 3, 1901, ch. 872, §30, as added Pub. L. 100-418, title V, §5161, Aug. 23, 1988, 102 Stat. 1450.)

§ 278p. Notice to Congress

(a) Notice of reprogramming

If any funds authorized for carrying out this chapter are subject to a reprogramming action that requires notice to be provided to the Appropriations Committees of the House of Representatives and the Senate, notice of such action shall concurrently be provided to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

(b) Notice of reorganization

(1) Requirement

The Secretary shall provide notice to the Committees on Science and Appropriations of the House of Representatives, and the Committees on Commerce, Science, and Transportation and Appropriations of the Senate, not later than 15 days before any major reorganization of any program, project, or activity of the Institute.

(2) “Major reorganization” defined

For purposes of this subsection, the term “major reorganization” means any reorganization of the Institute that involves the reassignment of more than 25 percent of the employees of the Institute.

(Mar. 3, 1901, ch. 872, §31, as added Pub. L. 105-309, §4(b), Oct. 30, 1998, 112 Stat. 2935.)

§ 278q. Appropriations; availability

Appropriations to carry out the provisions of this chapter may remain available for obligation and expenditure for such period or periods as may be specified in the Acts making such appropriations.

(Mar. 3, 1901, ch. 872, §32, formerly §18, as added Pub. L. 92-317, §3(a), June 22, 1972, 86 Stat. 235; amended Pub. L. 95-322, §2(b), July 21, 1978, 92